From:	Benjamin Shorr
To:	Robert Gensemer
Cc:	Eric Blischke/R10/USEPA/US@EPA; Robert.Neely@noaa.gov; Ron.Gouguet@noaa.gov; Brad Hermanson; Carrie Smith; Jim Koloszar; Margaret Spence
Subject:	Re: Rd. 2 Data Review- initial spatial analyses
Date:	12/21/2006 03:37 PM
Attachments:	ph_Spatial_Analysis_Methodology_bs.doc

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good to talk with you all- attached is an initial "methodology" write-up. This is for some of the preliminary spatial pieces-

Thanks,

Ben

Robert Gensemer wrote:

> Thanks, all, for the replies. Ben, Carrie, Jim, and Margaret are all
> available tomorrow afternoon, so lets go for 2pm for a planning call to
> go over Ben's observations/questions, and get organized and going on
> analyses.
>
> Lets us my callin number: Non-Responsive .
>
> Ben: In advance, could you send around a quick list of files we should
> have in front us on computer screens if we need to refer to them?
> Thanks.
> -Bob
>
> **
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>
> Benjamin Shorr <Benjamin.Shorr@noaa.gov> 12/20/06 11:02 AM >>>
>
> Bob & Eric et al-
>
> I've been going through the contaminant and spatial data and coming up
> with a methodology/process for querying and summarizing spatially to
> meet the needs of inputs to HH, ER, BSAF and the other analyses, and
> mapping/graphing. I've created some base GIS layers that we can uses to
>
> summarize/assign location to contaminant data (River Miles & Fate and
> Transport segments) and have come up with a couple of
> observations/questions:
>
> 1. The reference value table should probably be in the same units as
> the database (Query Manager) with a clear indication of what

guideline
or value was chosen based on the priority preference. This will help
with identifying the sources in tables/graphs/figures. Additionally,
the Chem names should be translated into the Chemcodes in Query Manager-

this should help with ensuring consistency between sed/tissue/bioassay &

water data & using a look-up table.

2. Statistics: For summarized data- fate and transport segments, River
Miles, nearshore receptor habitat etc. I have explored a bit how best
to calculate 95% UCL's and perhaps UPLs (using surface sediment as a
test case) for 8 metals, Total PAH, PCBs, DDT, Dieldrin. Generally,
these contaminants are distributed log-normally (entire site). We
should discuss the best and most appropriate way to incorporate/present
UCLs/UPLs. Generation of the following statistics for the sub-areas
summation is a standard part of the methodology: Min, Max, Count, Mean,
SD and Variance.
I've also found that generating a master contaminant data query from
Query Manager has some limitations in the GIS because of the -999 entry
for non-tested analytes at a station. This just means that folks doing
mapping & analysis need to coordinate on what queries should be used for

what pieces.

3. Non-detects or below detection limit: It's important to understand
how Query Manager queries handle these selections- and how the inputs
for the different analyses should be created. We should discuss this.

4. Inclusion/Exclusion of areas like GASCO, T4, McCormick & Baxters:
how should data that is in these areas be handled for this data review?

Temporally, what data should be used for analysis and presentation for
this Rd. 2 Data Review?

I've posted some examples of mapping and Excel graphs (with data tables)

for discussion. There may be errors- I've been using these as a test to

explore the data and the process.

Non-Responsive

Maps: 3 series maps showing PAH's summarized by River Miles, AOPC's, and

Fate and Transport Segments. 1 map of the River Miles with an explanation of areas.
Excel Table & Graphs: Total PAHs graphed by River Mile and side, Total

PAHs in clams (these in particular are not perfect)
Word Doc: Screenshots of selected analytes in surface sediment
Histograms & QQPlots
Metadata: Query Manager auto-documentation

I'm sure there is more, but these are initial observations after running

through the data a bit, hopefully we can discuss and begin moving forward systematically.

Thanks,

Ben

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